Modifying an image

```
PS C:\Users\user> docker run -it ubuntu:16.04 /bin/bash
root@904bc169c13d:/# ping google.com
bash: ping: command not found
root@904bc169c13d:/# apt-get update
Get:1 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]
Get:2 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:3 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [2049 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:5 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:6 http://archive.ubuntu.com/ubuntu xenial/main amd64 Packages [1558 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial/restricted amd64 Packages [14.1 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial/universe amd64 Packages [9827 kB]
Get:9 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [15.9 kB]
Get:10 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [985 kB]
Get:11 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages [8820 B]
Get:12 http://archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages [176 kB]
Get:13 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [2559 kB]
Get:14 http://archive.ubuntu.com/ubuntu xenial-updates/restricted amd64 Packages [16.4 kB]
Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [1544 kB]
Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages [26.2 kB]
Get:17 http://archive.ubuntu.com/ubuntu xenial-backports/main amd64 Packages [10.9 kB]
Get:18 http://archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages [12.6 kB]
Fetched 19.4 MB in 1min 1s (317 kB/s)
Reading package lists... Done
```

```
root@904bc169c13d:/# apt-get install iputils-ping
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libffi6 libgmp10 libgnutls-openssl27 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0 libtasn1-6
Suggested packages:
  gnutls-bin
The following NEW packages will be installed:
  iputils-ping libffi6 libgmp10 libgnutls-openssl27 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0 libtasn1-6
0 upgraded, 10 newly installed, 0 to remove and 3 not upgraded.
Need to get 1307 kB of archives.
After this operation, 3781 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
root@904bc169c13d:/# ping google.com
PING google.com (142.250.199.78) 56(84) bytes of data.
64 bytes from 142.250.199.78: icmp_seq=1 ttl=37 time=40.1 ms
64 bytes from 142.250.199.78: icmp_seq=2 ttl=37 time=40.2 ms
64 bytes from 142.250.199.78: icmp_seq=3 ttl=37 time=40.2 ms
64 bytes from 142.250.199.78: icmp_seq=4 ttl=37 time=40.4 ms
64 bytes from 142.250.199.78: icmp_seq=5 ttl=37 time=40.3 ms
64 bytes from 142.250.199.78: icmp_seq=6 ttl=37 time=40.5 ms
```

```
64 bytes from 142.250.199.78: icmp_seq=67 ttl=37 time=40.2 ms
64 bytes from 142.250.199.78: icmp_seq=68 ttl=37 time=40.3 ms
^C
--- google.com ping statistics ---
68 packets transmitted, 68 received, 0% packet loss, time 67103ms
rtt min/avg/max/mdev = 39.580/40.417/41.592/0.318 ms
root@904bc169c13d:/# exit
exit
PS C:\Users\user>
```

Committing changes

```
PS C:\Users\user> docker ps -a
CONTAINER ID   IMAGE          COMMAND       CREATED        STATUS                    PORTS     NAMES
904bc169c13d   ubuntu:16.04   "/bin/bash"   9 minutes ago  Exited (0) 3 minutes ago            wizardly_sanderson
PS C:\Users\user> docker commit --help

Usage:  docker commit [OPTIONS] CONTAINER [REPOSITORY[:TAG]]

Create a new image from a container's changes

Options:
  -a, --author string    Author (e.g., "John Hannibal Smith
                         <hannibal@a-team.com>")
  -c, --change list      Apply Dockerfile instruction to the created image
  -m, --message string   Commit message
  -p, --pause            Pause container during commit (default true)
PS C:\Users\user> docker commit -a 'David Lanoy' -m 'Added ping utility.' 904 davidlanoy/ping
sha256:fb3aa9a1de53b0907f4376c008e3cea86bb867023da7def9bdceb3bbf3f93003
PS C:\Users\user> docker images
REPOSITORY        TAG      IMAGE ID       CREATED        SIZE
davidlanoy/ping   latest   fb3aa9a1de53   9 seconds ago  169MB
ubuntu            16.04    aefd7f02ae24   2 weeks ago    134MB
```

```
PS C:\Users\user> docker run -it --rm davidlanoy/ping /bin/bash
root@ef16e116b241:/# ping google.com
PING google.com (142.250.199.78) 56(84) bytes of data.
64 bytes from 142.250.199.78: icmp_seq=1 ttl=37 time=40.3 ms
64 bytes from 142.250.199.78: icmp_seq=2 ttl=37 time=40.3 ms
64 bytes from 142.250.199.78: icmp_seq=3 ttl=37 time=40.4 ms
^C
--- google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2002ms
rtt min/avg/max/mdev = 40.350/40.385/40.439/0.168 ms
root@ef16e116b241:/# exit
exit
PS C:\Users\user>
```